

Dkt No. PP00362.102  
USSN: 09/674,183  
PATENT

**In the Claims:**

The following listing reflects amendments to the claims and replaces all prior versions and listings of claims in this application.

1-3. (Cancelled)

4. (Currently amended) A carrier protein according to any one of the preceding claims comprising at least five different CD4+ T cell epitopes, wherein the CD4+ T cell epitopes are selected from the group consisting of a P23TT, P32TT, P21TT, PfCs, P30TT, P2TT, HBVnc, HA, HbsAg, MT and hsp70 CD4+ epitopes T cell epitope, and further wherein at least one of said CD4+ T cell epitopes is a HBVnc, HA, HbsAg, MT or hsp70 CD4+ T cell epitope.

5. (Currently amended) A carrier protein according to claim 4, that comprises the a P23TT, P32TT, P21TT, PfCs, P30TT, P2TT, HBVnc, HA, HbsAg and MT CD4+ epitopes T cell epitope.

6. (Currently amended) A carrier protein according to claim 4, that comprises the a P23TT, P32TT, P21TT, PfCs, P30TT, P2TT, HBVnc, HA, HbsAg, MT and hsp70 CD4+ epitopes T cell epitope.

7. (Cancelled)

8. (Currently amended) A carrier protein according to any one of the preceding claims claim 4, wherein the CD4+ T cell epitopes are human CD4+ T cell epitopes.

9. (Cancelled)

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10. (Currently amended) A carrier protein according to ~~any one of the preceding claims~~ claim 4 in an oligomeric form.

11. (Currently amended) A carrier protein according to ~~any one of the preceding claims~~ claim 4, conjugated to a polysaccharide.

12. (Original) A carrier protein according to claim 11, wherein the polysaccharide is an *Haemophilus influenzae* type B polysaccharide.

13. (Currently amended) A carrier protein according to claim 11, wherein the polysaccharide is ~~derived~~ from any one of the following organisms: *S. pneumoniae*, *N. meningitidis*, *S. aureus*, *Klebsiella*, or *S. typhimurium*.

14. (Currently amended) A carrier protein according to ~~any one of claims 11-13~~ claim 11, wherein the polysaccharide is conjugated to the carrier protein by a covalent linkage.

15. (Currently amended) A carrier protein according to ~~any one of claims 11-13~~ claim 11, wherein the polysaccharide is conjugated to the carrier protein by reductive amination.

16. (Currently amended) A carrier protein according to ~~any one of claims 11-15~~ claim 11, wherein ~~there are~~ between two and ten carrier protein units molecules are present for each polysaccharide unit molecule.

17-20. (Cancelled)

21. (Currently amended) A vaccine comprising a the carrier protein according to ~~any one of claims 1 to 16~~ claim 4.

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22-32. (Cancelled)

33. (New) A carrier protein according to claim 5, wherein the CD4+ T cell epitopes are human CD4+ T cell epitopes.

34. (New) A carrier protein according to claim 6, wherein the CD4+ T cell epitopes are human CD4+ T cell epitopes.

35. (New) A carrier protein according to claim 5 in an oligomeric form.

36. (New) A carrier protein according to claim 6 in an oligomeric form.

37. (New) A carrier protein according to claim 5, conjugated to a polysaccharide.

38. (New) A carrier protein according to claim 6, conjugated to a polysaccharide.

39. (New) A carrier protein according to claim 37, wherein the polysaccharide is an *Haemophilus influenzae* type B polysaccharide.

40. (New) A carrier protein according to claim 38, wherein the polysaccharide is an *Haemophilus influenzae* type B polysaccharide.

41. (New) A vaccine comprising the carrier protein according to claim 5.

42. (New) A vaccine comprising the carrier protein according to claim 6.

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43. (New) A vaccine comprising the carrier protein according to claim  
39.

44. (New) A vaccine comprising the carrier protein according to claim  
40.